

US EPA RECORDS CENTER REGION 5



434225

DATE: October 25, 2000
TO: File
FROM: David Hendren, START Analytical Services Manager,
E & E, Chicago, Illinois
SUBJECT: Qualification of Data
REFERENCE: Analytical TDD: S05-0007-808

This memo has been prepared to explain the qualification of data included in the analysis of volatile organic compounds (VOCs) in drinking water samples collected at the Sam Winer Property site. Qualification of data is based on guidelines stated in the Office of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01 (April 1990) Data Validation Procedures, Section 5.0, VOAs by GC/MS Analysis. Subsection 5.3 requires that non-detect results for any compound having a relative response factor less than 0.05 be qualified as rejected and flagged "R". Two compounds (acrolein and cyclohexanone) included in the reported results were qualified as rejected based on this criteria. This qualification implies that because of the low response factors, these compounds may be present at low concentrations in the samples and not be reported by the laboratory.

It is significant to note that neither acrolein nor cyclohexanone are target compounds of standard methods used for VOC analysis, including EPA Method 524.2 (drinking water), EPA SW-846 8260 (RCRA wastewater analysis), and Contract Laboratory Program Statement of Work For Organic Analysis. Laboratories often report expanded lists of target compounds, including "non-target" compounds of interest to a variety of clients.

The qualification of data due to low response factors is not unusual and does not indicate any deficiency of performance by the laboratory. Although it is not required by the method, the laboratory performed analysis of a "detection limit daily check standard" to verify the detection of low concentrations of compounds included in the daily calibration mixture. Acrolein was included in this analysis at a concentration of 3 parts per billion and was recovered at 71%; this demonstrates the capability of the laboratory to detect acrolein at low concentrations.

Although the OSWER Directive requires qualification of the data for acrolein and cyclohexanone, it is highly unlikely that these compounds are present at low concentrations. Furthermore, it was

unnecessary for the laboratory to include these compounds in the "target compounds" reported. In addition, the laboratory verified the capability of detection of acrolein at a low concentration.

If you have any questions, please call me at (312)578-9243.

Sincerely,

David Hendren
START Analytical Services Manager

THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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FACSIMILE TRANSMISSION COVER SHEET

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TO:

SEAN MACLEMMURY -

SORRY ABOUT THE SPELLING - I'm SURE
I'm WAY OFF!

FROM:

KARLA AULOK

TELEPHONE NUMBER:

(517) 432-1550

(CLEVELAND OFFICE ☐)

(EMERGENCY RESPONSE ☒)

NUMBER OF PAGES INCLUDING COVER SHEET:

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MESSAGE:

Here's the raw data explanation
for the residential wells.